

Title (en)

METHOD AND INSTALLATION FOR JOINING A COVER LAYER TO AN OBJECT

Title (de)

VERFAHREN UND INSTALLATION ZUM VERBINDEN EINER DECKSCHICHT MIT EINEM GEGENSTAND

Title (fr)

PROCÉDÉ ET INSTALLATION POUR LIER UNE COUCHE DE PROTECTION À UN OBJET

Publication

EP 3781383 A1 20210224 (EN)

Application

EP 19719229 A 20190417

Priority

- CH 4972018 A 20180417
- EP 2019059958 W 20190417

Abstract (en)

[origin: WO2019202012A1] A cover layer (2) is joined to an object (1) by means of a pressing force and mechanical vibration. The cover layer (2) has a cover layer contact surface (28), and the object (1) has an object contact surface (18), and the cover layer contact surface (28) and the object contact surface (18) are placed to face each other. The cover layer (2) or the object (1) or both comprise(s) a joining material. During the process, the cover layer contact surface (28) is brought into contact with the object contact surface (18), and a sonotrode (6) is used to press the cover layer (2) against the object (1) and to apply mechanical vibration to an outer surface of the cover layer (2) for a time sufficient for activating the joining material. Cover layer (2) and object (1) are conveyed relative to the sonotrode (6) in a continuous manner in a conveying direction (CD) throughout the steps of arranging, of bringing into contact, of pressing and of applying vibration. The step of conveying causes a sliding movement, along the conveying direction, of the cover layer relative to a coupling-out (61) face of the sonotrode (6). At least a portion of the coupling-out face (61) is not parallel to the object contact surface so that a distance between the sonotrode and the object contact surface continuously decreases along the coupling-out face portion as function of a position along the conveying direction (CD).

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2019202012A1

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